APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/580,545	05/26/2006	Katsuaki Nakane	SATO 134NP	3192

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ART UNIT	PAPER NUMBER
3715	

MAIL DATE	DELIVERY MODE
08/06/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	**Applicant(s)**
Office Action Summary	10/580,545	NAKANE, KATSUAKI
	Examiner	**Art Unit**	
	JACK YIP	3715	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL.**   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-7</u> is/are pending in the application.

   4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-7</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>26 May 2006</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a)☒ All   b)☐ Some * c)☐ None of:

   1.☐ Certified copies of the priority documents have been received.

   2.☐ Certified copies of the priority documents have been received in Application No. _____.

   3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO/SB/08)
   Paper No(s)/Mail Date <u>5/26/2006, 8/3/2006</u>.

4)☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2.   Claim 3 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Regarding claim 3, the phrase "such as" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d). Therefore, the limitations following the phrase "such as" is not considered.

Claim Rejections - 35 USC § 101

3.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4.   Claims 6 - 7 are rejected under 35 U.S.C. 101 as not falling within one of the four statutory categories of invention.   Supreme Court precedent (Diamond v. Diehr, 450 U.S. 175, 184 (1981); Parker v. Flook, 437 U.S. 584, 588 n.9 (1978); Gottschalk v. Benson, 409 U.S. 63, 70 (1972); Cochrane v. Deener, 94 U.S. 780, 787-88 (1876)) and recent Federal Circuit decisions (In re Bilski, 88 USPQ2d 1385 (Fed. Cir. 2008)) indicate that a statutory "process" under 35 U.S.C. 101 must (1) be tied to another statutory category (such as a particular apparatus), or (2) transform underlying subject matter (such as an article or material) to a different state or thing. While the instant claim(s) recite a series of steps or acts to be performed, the claim(s) neither transform underlying subject matter nor positively tie to another statutory category that accomplishes the claimed method steps, and therefore do not qualify as a statutory process.   For example, claim 6 states "a method for grading and evaluating compositional essays…"; however, none of the steps have been positively tied to a statutory products or things to accomplish such steps or acts.

Claim Rejections - 35 USC § 103

5.　　The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness

rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

6.　　Claims 1 - 4, 6 - 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Burstein

et al. (US 6,115,683) in view of Wolska et al. (US 2004/0194036 A1) and Weir et al. (US

2002/0192631 A1).

Re claims 1 - 4:

[Claim 1] Burstein discloses an apparatus for grading and evaluating compositional essays (Burstein,

Abstract) comprising: a term table recording a term corresponding to the grade level and a keyword

capable of evaluating the achievement of a term based on inclusion of a predetermined keyword in the

compositional essay (Burstein, col 8, lines 10 - 67; col 9, lines 1 - 40, "predefined keywords"); an

evaluation table recording and storing an evaluation result (Burstein, col 8, lines 10 - 67; col 9, lines 1 -

40, "The scoring or rule matching..."); a first evaluation unit evaluating the compositional essay input by

the student in accordance with the predetermined task based on the inclusion of the keyword achieving

the term (Burstein, col 8, lines 10 - 67; col 9, lines 1 - 40, "predefined keywords"). [Claim 2] Burstein

further discloses a unit evaluating the compositional essay based on a previously designated term and

keyword wherein the first evaluation unit includes a term table storing a term and keyword evaluating the

four fields of structure (Burstein, col 8, lines 50 - 67, "tree structure"), subject matter (Burstein, col 12,

lines 7 - 25, "predefine subject matter"), expression (Burstein, col 3, lines 41 - 49), and topic (Burstein,

from col 6, lines 33, "Concept"), divided as fields to be evaluated in common (Burstein, Abstract) for

compositional essays separated by age and grade level.

[Claim 1] Driscoll does not disclose a second evaluation unit evaluating the compositional essay input by

the student based on the amount of unique vocabulary constructing a sentence of the compositional

essay. However, Wolska teaches (Wolska, Abstract) a method for automatically evaluating an essay for

overly repetitive word usage. Wolska further states (Wolska, [0052]) "… the repetitive analysis modeler is

configured to receive each of the vector files from the feature extractor and extract patterns from the

vector file, based on previous training. In the previous training, a model is generated. In general, the

model includes at least one decision tree generated based on essays annotated by experts and/or trained

judges. By navigating the decision tree based on the value and presence or absence of features

associated with each entry in the vector file, a probability may be determined for each substantially

unique word. This probability correlates the use of the word in the essay to overly repetitive word use.

Thus, for each word, the model is utilized to determine the likelihood of the word being overly repetitive."

[Claim 3] Wolska additionally teaches the second evaluation unit includes a unit for crating a common

vocabulary file storing an arrangement of common vocabulary functioning as a connector in a sentence,

such as a particle, an auxiliary verb, and a conjunction (Wolska, col 3, "TABLE 1"), and a new

arrangement of unique vocabulary divided by a break signal such as a half-width space inserted into a

place from which a common vocabulary group stored in the common vocabulary file was sequentially

deleted in a composition input by the student (Wolska, [0031] - [0032], [0041], [0046]), a summary table

recording unique vocabulary extracted from the student's composition, and a unit displaying an evaluation

of a sentence's content upon calculation of the number of words and number of appearances of unique

vocabulary recorded in the summary table (Wolska, pg 7 - 9, "TABLE 2 - TABLE 4", "Non-repeated

words"). [Claim 4]. Wolska additionally discloses changing the number of letters to be evaluated in

accordance with a language of the composition to be evaluated ([0030]. [0039], [0049]), "word length

counter").

Therefore, in view of Wolska, it would have been obvious to one of ordinary skill in the art, at the time of

invention, to modify the apparatus described in Driscoll, by providing the repetitive word usage as taught

by Wolska, since Wolska states (Wolska, [0019]) "overly repetitive" refers to a stylistic writing error in

which a word, phrase, or the like, is repeated with sufficient frequency as to be distracting and/or

objectionable to a reader. However, it is to be understood that the invention is not limited to the evaluation

of overly repetitive word use. Instead, other embodiments of the invention may be utilized to detect a variety of writing errors.

[Claim 1] Burstein does not disclose a student table, a task table, a unit for sending email, a unit for reflecting the evaluation table and a unit for displaying a graph. However, Weir teaches a method and system for teaching in an interactive manner between the teacher/instructor and a group of students (Weir, Abstract).   Weir further teaches a student table recording a student as a learner of a task and a corresponding grade level and supervising teacher of the student; a task table recording a task corresponding to the grade level (Weir, [0081] - [0092], "Teacher Console", "… the who is who will be analyzed and the who could be, for example, a student, a class, a class session, a student group, a subject, a teacher, a school, a district, etc…"); a unit sending by e-mail the student's task and evaluation result thereof to the teacher designated by the student table (Weir, [0082], "…The how is how should the information be presented such as in the form of a graph, table, report, etc…"); a unit reflecting again in the evaluation table the evaluation result sent to and revised by the teacher (Weir, [0076], "… the list includes the possible points, whether the assessment is still outstanding for at least one student, a creation date, an assessment type (like test or quiz), and whether it has been graded…"); and a unit displaying by forming a graph the evaluation results from the evaluation table (Weir, [0082], "…The how is how should the information be presented such as in the form of a graph, table, report, etc…").

Therefore, in view of Weir, it would have been obvious to one of ordinary skill in the art, at the time of invention, to modify the apparatus described in Burstein, by providing the teacher interface as taught by Weir in order to provide a user interface to validate the grades generated from the automatic essay scoring system as taught by Burstein. Furthermore, a computer program lacks certain human intuition, so that a teacher can provide his / her opinion on assignments such as essay or constructive response questions. Weir further teaches grading information can be presented in the form of a graph, table or report, so that a teacher can easily grasp the performance of each student.

Re claim 6:

A method for grading and evaluating compositional essays comprising: setting a student table recording a

student as a learner of the compositional essay and a corresponding grade level and supervising teacher

of the student, a task table recording a task corresponding to the grade level, a term table recording a

term corresponding to the grade level and a keyword capable of evaluating the achievement of a term

based on inclusion of a predetermined keyword in the compositional essay, an evaluation table recording

and storing an evaluation result; evaluating a compositional essay input by the student in accordance with

the predetermined task based on the inclusion of the keyword achieving a term; evaluating the

compositional essay input by the student based on the amount of unique vocabulary constructing a

sentence and; sending by e-mail the student's compositional essay and evaluation results thereof to the

teacher designated by the student table.

(See claims 1 - 4 above)

Re claim 7:

The method for grading and evaluating compositional essays according to claim 6, further comprising the

steps of reflecting again in the evaluation table the evaluation results having been corrected and added

by the teacher and displaying through a graph the evaluation results from the evaluation table.

(See claims 1 - 4 above)

7.   **Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Burstein et al. (US**

6,115,683) in view of Wolska et al. (US 2004/0194036 A1), Weir et al. (US 2002/0192631 A1) and

Berman (US 6,461,166 B1).

Re claim 5:

The combination Burstein, Wolska and Weir does not disclose the apparatus for grading and evaluating

compositional essays by changing a definition of a word considered as sophisticated vocabulary in

accordance with a language of the composition to be evaluated. However, Berman discloses a

methodology in which a learner-constructed response is provided in answer to a question presented by

the system, the response being evaluated by comparison with pre-defined expected responses and, based upon the evaluation, the system determining whether to proceed to another question or to offer remedial feedback (Berman, Abstract). Berman further states (Berman, col 4, lines 13 - 48) " ... step where a comparison is performed of the learner's response with the pre-defined key word data contained in the evaluation information component 30 (FIG. 2A). The comparison may involve a variety of analyses. For example, the comparison may: ... (4) determine whether related phrases that convey the same meaning as the expected key word(s) or phrases appear in the learner-constructed response; ..."

Therefore, in view of Berman, it would have been obvious to one of ordinary skill in the art, at the time of invention, to modify the apparatus described in Burstein, by providing word definition as taught by Berman, since a word may have different definitions depends on where it is use in a sentence.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JACK YIP whose telephone number is (571)270-5048. The examiner can normally be reached on Monday - Friday 9:30am - 5:00pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Xuan Thai can be reached on (571)272-7147. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/J. Y./
Examiner, Art Unit 3715

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